

COMPOSITE THERMAL INTERFACE DEVICES AND METHODS FOR INTEGRATED CIRCUIT HEAT TRANSFER

Abstract

5 A method and device for thermal conduction is provided. A thermal
interface device and method of formation is described that includes advantages such
as improved interfacial strength, and improved interfacial contact. Thermal
interface devices are shown that include at least some degree of mechanical bonding
through plastic deformation of metal. Embodiments of composite thermal interface
10 devices are shown that provide reduced device cost by limiting use of expensive
materials such as diamond, or gold. Device cost is also reduced in a number of
embodiments by reducing a number of manufacturing steps in the formation of
integrated circuit devices.

"Express Mail" mailing label number: EV 332568516 US
Date of Deposit: June 26, 2003,

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